

REMARKS

Claims 26 and 28-50 are currently pending in this Application. In the Final Office Action mailed on April 2, 2007, the Examiner rejected claims 26 and 28-50 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,561,997 to Weitzel et al. ("Weitzel") in view of U.S. Patent No. 4,894,164 to Polaschegg ("Polaschegg"), and further in view of U.S. Patent No. 6,582,387 to Derek et al. ("Derek"). These rejections should be withdrawn for at least the reasons set forth in the following discussion. Applicants have included a listing of the pending claims for the Examiner's convenience.

Rejections Under 35 U.S.C. § 103

Applicants respectfully request that the Examiner withdraw the rejections of claims 26 and 28-50 as being unpatentable over Weitzel in view of Polaschegg, and further in view of Derek, because there is no *prima facie* case of obviousness. Weitzel, Polaschegg, and Derek, either alone or in combination, fail to disclose or suggest each and every limitation of independent claims 26 and 38.

Regarding claim 26, the Examiner correctly concedes that Weitzel "does not disclose that the temperature sensor is located in the access branch, upstream of all blood treatment devices, nor does it disclose that the temperature regulating device 8 is located downstream of all blood treatment elements to form a heat exchanger directly before blood reenters the patent" (Office Action at 4), both of which are elements recited in independent claim 26. The Examiner further contends, however, that Weitzel discloses "that the heat exchanger 8 functions to keep the blood at a physiological temperature (Column 6, Lines 16-19), thus function according to a first temperature (actual blood temperature) and a reference temperature (preferred physiological blood temperature)." (Office Action at 3-4). Applicants disagree. This passage of Weitzel,

cited by the Examiner, merely describes the function of a known heat exchanger, which detects the actual temperature of a fluid going through the heat exchanger. The temperature of the fluid in the heat exchanger in Weitzel is then maintained within a predetermined range based on a reference temperature and irrespective of the blood temperature in the arterial branch as it is drawn from the patient. Nowhere does Weitzel disclose or suggest that the actual temperature of the blood, measured when it exits the patient, is used in conjunction with a reference temperature of the blood to control the temperature of the blood in a different portion of the circuit (at a location immediately upstream from the point at which the blood reenters the patient), as recited in independent claim 26. Thus, despite the Examiner's contention, Weitzel fails to disclose a "temperature regulating device for controlling the blood temperature [downstream of all blood circuit elements] by controlling the temperature of the fluid conveyed in said line as a function of said first temperature [of blood leaving a patient] and of a reference temperature" (emphasis added), as recited in independent claim 26.

The Examiner contends that "Polaschegg discloses a blood treatment apparatus comprising a temperature sensor 206 located in the access branch 220 and upstream of all blood treatment devices (see Figure 1)." (Office Action at 9.) Polaschegg, however, does not disclose or suggest a "temperature regulating device for controlling the blood temperature [downstream of all blood circuit elements] by controlling the temperature of the fluid conveyed in said line as a function of said first temperature [of blood leaving a patient] and of a reference temperature" (emphasis added), as recited in independent claim 26, and thus, fails to cure the above-mentioned deficiencies of Weitzel.

The Examiner also contends that “Derek et al. discloses a blood treatment apparatus wherein a heat exchanger may be placed within the return tube 50 (Column 10, Lines 7-11), which is downstream of all blood treatment elements (see Figure 2).” Applicants point out, however, that the cited passage in Derek is unclear, and thus, Derek does not disclose or suggest a temperature regulating device located downstream of all blood circuit elements and immediately before the blood is returned to the patient, as recited in independent claim 26. Nevertheless, Derek fails to disclose or suggest a “temperature regulating device for controlling the blood temperature [downstream of all blood circuit elements] by controlling the temperature of the fluid conveyed in said line as a function of said first temperature [of blood leaving a patient] and of a reference temperature” (emphasis added), as recited in independent claim 26, and thus, fails to cure the above-mentioned deficiencies of Weitzel.

Therefore, for at least the reasons discussed above, independent claim 26 is allowable over the cited references. Accordingly, claims 28-37 are allowable at least due to their dependence from allowable independent claim 26.

For at least the reasons discussed above with respect to independent claim 26, the cited references also fail to disclose or suggest each and every limitation of amended claim 38. More specifically, the cited references do not disclose or suggest the step of “regulating a blood temperature in the extracorporeal blood circuit as a function of the first temperature [measured upstream of all blood treatment elements] **and** of a reference temperature, the blood temperature in the extracorporeal blood circuit being regulated along a portion of the return branch and downstream of all blood treatment elements, directly before blood is returned to the patient.” (Emphasis added.)

Thus, independent claim 38 is allowable over the cited references because the cited references do not teach each and every limitation of independent claim 38.

Accordingly, claims 39-50 are allowable at least due to their dependence from allowable independent claim 38.

Conclusion

Applicants respectfully request that this Request for Reconsideration After Final under 37 C.F.R. § 1.116 be considered by the Examiner, placing the pending claims in condition for allowance. Applicants respectfully request withdrawal of the § 103(a) rejections, and allowance of pending claims 26 and 28-50.

Applicants note that the Final Office Action contains several statements reflecting assertions about the pending claims and the cited references. Regardless of whether any such statement is addressed specifically above, Applicants decline to subscribe to any assertion in the Final Office Action.


If a telephone interview will expedite issuance of this application, the Examiner is requested to call the undersigned at (202) 408-4387 to discuss any remaining issues.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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Dated: June 5, 2007

By: 

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